

EXHIBIT 21

	A	B	C	D	E	F
1	Design Failure Mode, Effects and Criticality Analysis Rev L					
2	CRYOGENIC FREEZERS: MVE, HECO, VARIO, CRYOSYSTEM FULL AUTO					
3	ID#	Item	Item Function	Potential Design Failure Mode	Potential Cause of Design Failure Mode	Immed Effect of failure
4						
44	DEW-0	Dewar	Stores samples, holds cryogen	Any	See DEW-3 through DEW-20	Dewar can not maintain temperature suitable for cryogenic storage
45	DEW-1	Dewar- Annular lines	Fill line from the outer to inner vessel	Blockage	Ice build up in the line	Unit is unable to fill
46	DEW-2	Dewar- Annular lines	Provides capability for level sensing through differential pressure	Blockage	Ice build up in the line	Level reading error. Possible overflow if level is read lower than actual.
47	DEW-3	Dewar- Annular lines	Fill line from the outer to inner vessel	Crack or leak	Weld Line Failure	Liquid draws into vacuum space, expanding rapidly and causing an inner vessel implosion, total vacuum loss. Loss of function of the freezer
48	DEW-4	Inner Vessel	Holds LN2	Crack or leak	Weld Line Failure	Liquid draws into vacuum space, expanding rapidly and causing an inner vessel implosion, total vacuum loss. Loss of function of the freezer
49	DEW-5	Dewar - Insulation	Insulates inner vessel	Compaction / Settling	Incorrectly Wrapped vessel	Loss of insulation resulting in high normal evaporation rate (NER) of liquid N2
50	DEW-6	Outer Vessel	Contains inner vessel and vacuum space	Crack	Weld Failure	Vacuum Loss leading to high normal evaporation rate (NER), possible inner collapse. Sieve attempts to compensate until capacity of sieve is reached
51	DEW-7	Outer Vessel	Contains inner vessel and vacuum space	Outer shell collapse	Material flaw, too thin, discontinuities due to delamination, etc, Can be induced due to impact, or material stress	Overall structural failure, creating thermal short due to contact between outer and inner vessel, leading to high NER